

AUSTRALASIAN BRYOLOGICAL NEWSLETTER

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Cover Page

Participants of the VIIth Australasian Bryophyte Workshop:

12 mycologists joined thirty-seven bryologists and most are photographed here at Rawson Village before heading off on another day in the field at Mt. Baw Baw National Park

For more photos of the workshop activities I refer you to the website.

VIIth Australasian Bryophyte Workshop, Rawson, Victoria 4th – 9th October 2003

Organised by Pina Milne, Niels Klazenga and Karen Beckmann from the Royal Botanic Gardens, Melbourne, as part of the celebrations for the 150th anniversary of the National Herbarium of Victoria, the seventh Australasian Bryophyte Workshop was held at Rawson, in the foothills of the Great Dividing Range, 175 km east of Melbourne.

The last day of the Australian Systematic Botany Conference (the major focus of the '150' celebrations) was devoted to bryophytes, and many workshop participants had attended. It was a perfect prelude to the workshop and put us all in the mood for what was to come! Transport to Rawson village on Saturday morning was superbly choreographed and we all arrived at the Rawson Village Motel in time for lunch. It's amazing how cold weather makes you hungry!

The afternoon excursion was a short 15 km trip to Walhalla, an historic gold mining area. Some took the option of the Old Steel Bridge walking track, which follows on old tramway track through wet sclerophyll forest with an understorey of *Bedfordia* and tree ferns; the more energetic participants took the steep Cricket Ground Track through dry sclerophyll forest to the famous Walhalla cricket ground. We must confess that we didn't get far — the earth banks offered a rich selection of mosses, liverworts and hornworts, and the nearby stream provided more than enough excitement for one afternoon! The 'catch of the day' was a huge population of *Tetraphidopsis pusilla*, forming extensive mats over branches and twigs on a tree next to the Thompson River. (And now we all know what couplets 60 and 137 refer to in the Buck, Vitt & Malcolm key!) Pina Milne was particularly delighted to find good specimens of *T. pusilla* and commented that Ilma Stone made the only collection for Australia from Erskine Falls, Lorne, Victoria, although it had also been recorded from a site in Gippsland. Apparently, Pina had only the one Australian collection to refer to when writing the flora treatment for the Flora of Australia, so it was a great find!

Sunday was spent at various sites on Mt Erica – the Mountain Monarchs walk through wet sclerophyll forest dominated by *Eucalyptus regnans*, with an understorey of *Acacia dealbata*, *Tasmannia xerophila* and tree ferns; the Beech Gully Nature Trail through high-altitude cool temperate rainforest with ancient and magnificently mossy Myrtle Beech trees (*Nothofagus cunninghamii*); and Mushroom Rocks, a walk along a section of the Australian Alps Walking Track, past giant granite tors and through open Snow Gum (*Eucalyptus pauciflora*) forest. It was a wonderful day and for some members of the party it was their first experience of snow. Again, there were opportunities for the more energetic and the more sedate. A notable find was an unidentified semi-aquatic *Heteroscyphus* (dubbed 'The Bat') in a creek crossing the Mushroom Rocks track.

The South Face Road was the focus of Monday's excursion. The recently constructed road did not look inspiring at first but soon proved to be otherwise. Embankments and pockets of Myrtle Beech dominated rain forest were easily accessible from the roadside – but the most memorable were the fern gullies and streams – in some areas with 100% bryophyte cover. They were magical sites — bryophyte heaven with carpets of the hornwort *Megaceros gracilis* on stream boulders and everywhere dripping with mosses and leafy liverworts! It was one of the most enduring memories of the whole workshop. Karen Beckmann returned with a nice specimen of *Metzgeria consanguinea*, a rare find indeed!

Tuesday saw a change of itinerary as recent snowfalls had made access to Mount Baw Baw difficult (and finding bryophytes under the snow would not have been easy!). Instead we made the long drive to Tarra Bulga National Park, home to lyrebirds, Myrtle Beech, and of course more than 100 bryophyte species. An

audio-visual extravaganza presented by the ranger set the scene for our rambles across the suspension bridge and along rainforest gullies, where small groups quickly dispersed, seeking their particular items of interest. By the end of the day we had added more than 20 species to the existing list of bryophytes for the park.

On Wednesday most participants went to the summit of Mount St Gwinear and visited cool temperate rainforest along South Cascades Creek. Sub-alpine heathland and Snow Gum woodland offered interesting habitats for bryophytes. Those of us who had been worn out by the exertions of the previous days took the chance to stay in and spend time with the microscopes, sorting through a variety of difficult specimens.

It was a most enjoyable workshop. Accommodation was very comfortable and food was plentiful. Participants came from all over Australia and there was a large New Zealand contingent. We were also fortunate to have Brent Mishler with us from the University of California, Berkeley — and will remember him not only for his bryology but also for his prowess at table tennis — Pat Brownsey and Paddy Dalton weren't bad either!! Evenings were spent listening to short presentations and studying material collected during the day. There was a wonderful convivial atmosphere throughout the week, helped to some degree by the log fire and a few bottles of 'Rawson's Retreat'! Thanks to Teresa Lebel for sharing some of the finds of the fungi group — we had no idea that truffles were so common in Australia... and the morels were delicious!

Our grateful thanks and appreciation go to Pina, Niels and Karen for their hard work in organising the event — an excellent job well done. Participants voted to hold the 2005 workshop in the tropical rainforest at Paluma, near Townsville, North Queensland. We look forward to seeing you there!

Note from Pina Milne and Niels Klazenga: "Our aim is to have the species lists on a web site which will be linked to the Australasian Bryological Newsletter site. It would be fair to say that we have made a major contribution to the existing species list for the Tarra-Bulga National Park, and have produced extensive species lists for sites within and in the vicinity of Baw Baw NP."

Andi Cairns, James Cook University, Townsville & David Meagher, Melbourne, Victoria

19th John Child Bryophyte Workshop Hunua Range, Auckland, New Zealand. 12th – 15th September 2003

The 2003 workshop was based at a picturesque road end site surrounded by native forest at Hunua Falls, only 10 km from industrial Papakura in South Auckland and less than an hour by road from Auckland Airport. The venue was a well-appointed lodge with bunkroom accommodation for those living on site, spacious dining/laboratory space, and a separate lecture room for evening presentations. Over fifty participants took part in the programme, proximity to Auckland allowing some to attend as day visitors. With the Australasian Bryophyte Workshop at Mt Baw Baw to follow soon after, participation by Australian colleagues was lower than usual. We were pleased, however, to have with us Lyn Cave and Rod Seppelt from Tasmania.

Hunua Falls lies at the western fringe of the Hunua Range, an extensive regional park with water supply dams, some areas of commercial exotic forest, mainly in the north, and significant native forest, managed for conservation and recreation. The workshop organisers, workshop stalwarts Jessica Beever and John Braggins together with Ewen Cameron and Mei Nee Lee of the Auckland Museum, had arranged an interesting programme including visits on three of the days to contrasting sites within the park. On the first evening, as introduction to the natural history of the park, Ewen Cameron gave an illustrated presentation on the vegetation and Tim Lovegrove of the Auckland Regional Council spoke on the conservation significance of the area and about the kokako (wattled crow) restoration project.

On the morning of the first day, we visited an area of regenerating lowland broadleaf forest at the beginning of the Wairoa Loop Track where bryophytes were abundant on trackside banks and on trees and tree ferns. Moss sightings included *Entosthodon acaulon*, *Rhizogonium novae-hollandiae*, *Calomnion complanatum*, and *Daltonia splachnoides*. Back in the lodge after lunch, Jessica and John ran a workshop for beginners and Rod demonstrated his salad shredding technique for obtaining leaf sections.

We travelled further afield on the following day to a car park near the summit of Mangatangi, 487 m., close to the southern end of the Hunua Range. From the repeater site at the summit, a spectacular panorama included the Mangatangi Dam and range to the north, the Firth of Thames and the mountains of the Coromandel Peninsula to the west, and the Hauraki Plains, our destination for the following day, to the south. From the summit, a track follows a ridge to the west descending to rejoin the access road about 3.5 km away. After a period examining the bryophytes in the forest near the top of the ridge, the group continued their descent. The associations of kauri (*Agathis australis*), hard beech (*Nothofagus truncata*) and tanekaha (*Phyllocladus trichomanoides*) encountered on the descent, less familiar to those of us from further south, were of particular interest. *Hypnodendron colensoi* and *Dicranoloma fasciatum* were common on the ground, and epiphytes included *Trachyloma planifolium*, *T. diversinerve* and *Cryptopodium bartramoides*. The Hauraki Plains are renowned for their peat soils. Sunday had been designated as a 'Sphagnum Day', beginning with a workshop session run by Allan Fife and an afternoon visit to two Hauraki Plains peat sites. A short time was spent initially at the Gammon Peat Mine observing, in strong wind and driving rain, regeneration plots on mined areas. The second site, a Department of Conservation reserve at the edge of the Kopouatai peat dome, was dominated by *Sporodanthus ferrugineus* and the smaller restiad, *Empodisma minus* with wet terrain bryophytes including *Sphagnum cristatum* and *S. falcatulum*, *Campylopus acuminatus* var. *kirkii* and *Goebelobryum unguiculatum*.

On the final day of the workshop, sites to the north of the park were visited. A short time was first spent at the site of an old manganese mine where *Mittenia plumula* was present in the shaft entrance and *Wilsoniella blindioides* was located on roadside clay. The main destination was the Kohukohunui Track along the higher ridges of the 600 hectare kokako restoration area and its tawa (*Beischmiedia tawa*), puketea (*Laurelia novae-zelandiae*) forest. Here epiphytes were abundant and included *Braithwaitia sulcata* and *Cyrtopus setosus*. *Goniobryum subbasilare*, *Echinodium umbrosum* and *Hypnodendron menziesii* were also noted. The kokako, however, proved to be elusive. A brief stop was made later in the day at the Fringe Track car park. Sterile *Fissidens bryoides* was present in bare lawn patches and *Cryphaea tenella* (= *C. exannulata*) was found on car park border vegetation.

During the workshop, additions to the Auckland Museum Herbarium (AK) bryoflora records for the Hunua Ecological District were recorded. These are being collated for publication in the Auckland Botanical Society Journal.

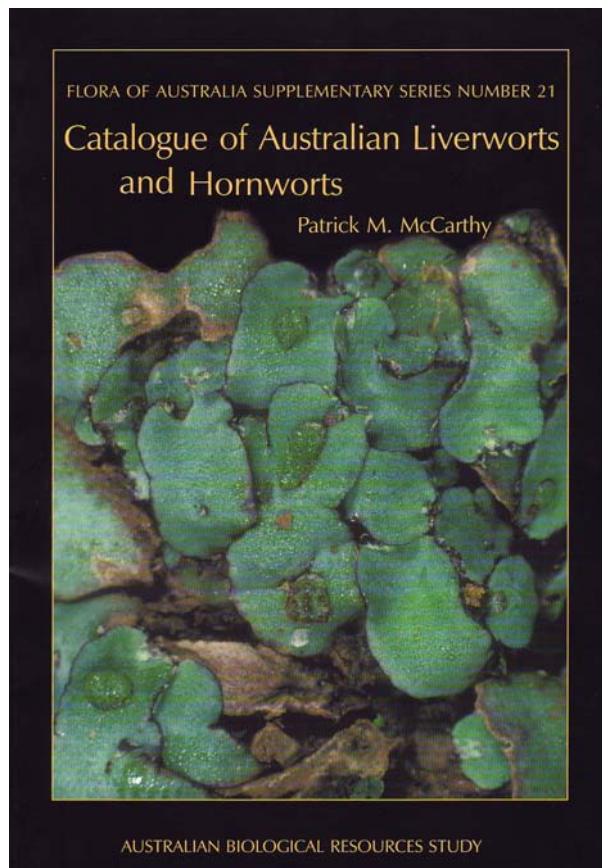
As is usual, an evening programme of informative and challenging presentations had been arranged. Amongst these, David Glenny spoke on recent findings on relationships between liverwort families, and of work in collaboration with J.J.Engels on a Liverwort Flora, Bill Malcolm argued for a greater use of digital photography to complement or assist flora illustration, and Ian Raine spoke on bryophyte fossil records. Bryony Macmillan paid tribute to the contribution to bryology of the late Dame Ella Campbell, an early participant in John Child Workshops.

Our thanks go to the committee members for workshop organisation and the selection of such a suitable venue and interesting range of sites. Particular thanks go to Mei Nee Lee for her efficient attention to the essential administrative details.

At the conclusion of the workshop, it was agreed that the 20th John Child workshop be held in Golden Bay.

Peter Beveridge, 5 Mataiwhetu St, Porirua, New Zealand

Hot off the Press



Major Taxonomic revisions and a substantial amount of additional floristic information have become available since the publication of Scott & Bradshaw's "Australian liverworts (Hepaticae): annotated list of binomials and checklist of published species with bibliography" in 1986. Monographs of Australian families and genera have included descriptions of many new taxa and the reduction of other names to synonymy. Moreover, many taxa have been newly reported from Australia, while other Australian records have proved to be based on misidentifications or could not otherwise be confirmed.

The Catalogue comprises an alphabetical listing of accepted genera and species, synonymy, distribution in the Australian States and mainland Territories, excluded names, names of uncertain application, nomina nuda and post-1982 literature that provides locality details, descriptions, keys and/or habitat information. Following the publication by ABRS of Catalogue of Australian Mosses (2002) and Catalogue of Australian Lichens (2003), this work completes a trio of catalogues comprising more than 5,000 Australian bryophyte and lichen taxa which represent a significant component of the national biota.

Soft cover; B5; 138 pages.

Price: A\$25 (incl. surface mail worldwide and GST in Australia).

Riccardia crassa (Schwaegr.) Carrington & Pearson, *Proc. Linn. Soc. New South Wales*, ser. 2, 2: 1056 (1888)

Jungermannia crassa Schwaegr., *Hist. Musc. Hepat. Prodr.* 31 (1814)

Aneura crassa (Schwaegr.) Nees, in Gottsche, Lindenberg & Nees, *Syn. Hepat.* 4: 500 (1846)

Sarcomitrium crassum (Schwaegr.) Mitt., in Hooker, *Fl. Nov.-Zel.* 2: 167 (1855)

Aneura stolonifera Steph., *Hedwigia* 28: 129 (1889)

Aneura rufescens Steph., in Stephani & Watts, J. & *Proc. Roy. Soc. New South Wales* 48: 96 (1914)

Aneura walesiana Steph., in Stephani & Watts, J. & *Proc. Roy. Soc. New South Wales* 48: 97 (1914)

Aneura longiflora Steph. f. *submersa* Rodway, *Tasman. Bryoph.* 2: 13 (1916)

Aneura coriacea Steph., *Sp. Hepat.* 6: 23 (1917)

Aneura spathuliloba Steph., *Sp. Hepat.* 6: 42 (1917)

[*Aneura pinnatifida* auct. non Nees: Rodway, *Tasman. Bryoph.* 2: 12 (1916)]

[*Sarcomitrium pinnatifidum* auct. non (Nees) Mitt., in Hooker, *Fl. Nov.-Zel.* 2: 167 (1859)]

Scott (1985: 41); Hewson (1986: 367); Ramsay *et al.* (1986: 335); Ratkowsky (1987: 154); Brown & Braggins (1989: 85); Cropper *et al.* (1991: 1); Kantvilas & Jarman (1991: 158); Brown *et al.* (1992: 70, 71); Jarman & Kantvilas (1994: 118; 1995a: 43; 1995b: 69; 2001: 212); Moscal & Kirkpatrick (1995: 25; 1997: 196); Meagher (1996: 96; 1999: 8); Meagher & Rankin (1997: 174); Jolley & Milne (1998: 10); Meagher & Scott (1998: 330); Selkirk *et al.* (2001: 65); Bolin & Henderson (2002: 222); Meagher & Fuhrer (2003: 196)

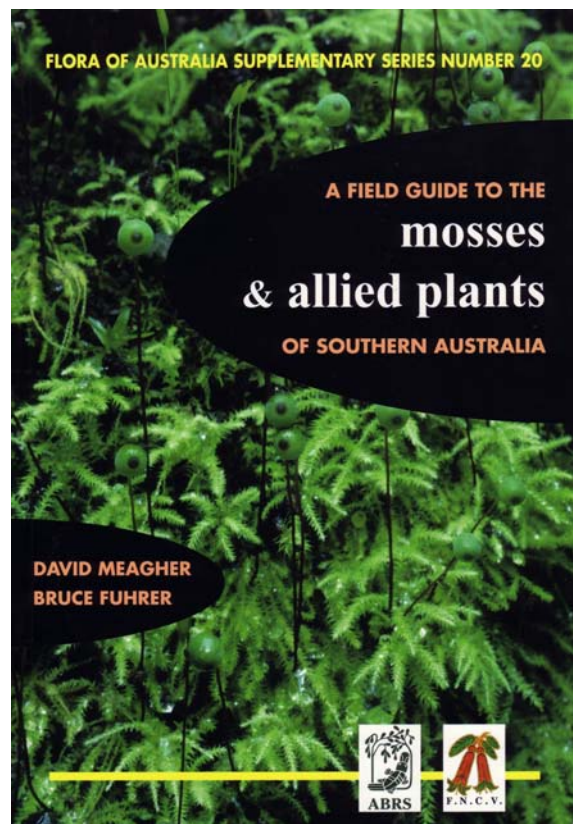
WA, QLD, NSW, ACT, VIC, TAS

A comprehensive, plain-English and richly illustrated identification guide to 500 mosses, liverworts and hornworts in southern Australia. The book includes an introduction to the bryophytes, information and hints on the collection, storage and identification of specimens, identification keys, descriptions, thumb-nail anatomical sketches and more than 250 superb colour photographs (mostly half-page).

A co-publication of ABRS and the Field Naturalists Club of Victoria

Soft cover; A5; 280 pages

Price: A\$48 (incl. surface mail worldwide & GST in Australia)



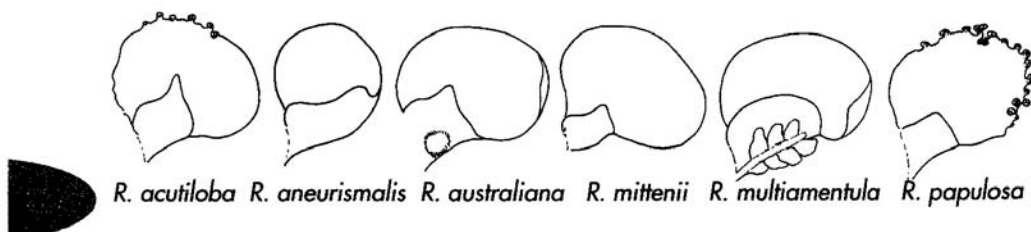
Radula compacta

The leaves of *R. compacta* are slightly convex and the lobule is rectangular, with the long sides aligned perpendicular to the stem. The angle formed by the junction of the lobe and lobule is less marked than in *R. buccinifera*. This species grows in much the same habitats but does not seem to form dense mats.



R. aneurismalis (TV) has small, almost circular leaves and a relatively large lobule. *R. multiamentula* (T) has a small ventral shoot arising from the base of each leaf, and the lobule is large and rounded. *R. physoloba* (TN) has concave leaves and a bulging lobe. *R. plicata* (T) has the perianth multiplicate and the ventral leaf margin deeply notched. *R. tabularis* (TVN) has an elongated lobule with a very narrow inflated region. *R. tasmanica* (T) has a notched ventral margin and bulging lobule.

Similar species: *Frullania* spp., *Lejeuneaceae* spp., other *Radula* spp.



Australian Antarctic Division new Herbarium facility opened.

(ADT. CITES number: AU006 (formerly AU113))

Australian Antarctic Division. Channel Highway, Kingston, Tasmania, Australia. 7050. Phone +61 3 6232 3438. Fax +61 3 6232 3449

The Antarctic Division Herbarium (ADT) is home to about 25,000 specimens of mosses, liverworts, lichens, flowering plants and ferns, fungi and algae.

The collections are housed at the Australian Antarctic Division (AAD) at Kingston, Tasmania, Australia, in a dedicated facility that is deemed sufficiently fireproof, safe from water damage, and from the ravaging effects of hungry insect pests. The collections were previously housed in makeshift storage facilities in a variety of locations at the AAD at Kingston. Attached to the new facility is a dedicated laboratory where detailed microscopical examination of the collections can be undertaken. Working in the Herbarium is the Curator Prof. Rod Seppelt Rod.Seppelt@aad.gov.au and Assistant Curator Dr. Perpetua Turner Perpetua.Turner@aad.gov.au.

The Herbarium houses the world's most significant continental Antarctic collection of mosses and lichens and contains the first records of particular plants from many localities in continental Antarctica and on the subantarctic islands. Some gems include the original specimens for several new lichens and mosses and also a hepatic (*Seppeltia succuba* Grolle) from Macquarie Island. The collection is significant for its geographical spread - from 0° east through to 180° east and on to 150° west, south in the Ross Sea area from 72° south to 86° south and the number of outcrops from which plants have been collected. The Herbarium is also significant for its coverage of the subantarctic islands, with collections from Marion Island, Iles Kerguelen, Heard and McDonald Islands, Macquarie Island, Campbell Island and Auckland Islands. The maritime Antarctic region is represented by collections from King George Island and South Georgia. The collection includes, as far as possible, the range of variation found in particular plants from any locality where they have been found.

Specimens in the Herbarium have been contributed by a number of individuals however to date the most substantial contribution has been made by Rod Seppelt. Rod's contribution began with a professional career in 1970 and includes 36 visits to Antarctica, spanning approximately 12,000km.

As specimens are identified, their details are entered into an interface database (designed by Tore Pedersen) from which herbarium staff can immediately print packet or specimen labels. Specimen details from the interface database will be incorporated into the Australian Antarctic Division's Biodiversity database, which is managed by the Australian Antarctic Data Centre (AADC). This database currently contains ~10,500 bryophyte specimen records, with public access via the AADC website (http://aadc-db.aad.gov.au/pls/dataaccess/flora_search). Ultimately, it is hoped that most of the collection will be digitally captured with each image linked to the corresponding specimen and collection data in the biodiversity database.

The Herbarium started life as a personal collection of Rod Seppelt, and was registered in 1978 in response to a move sponsored by the International Association of Plant Taxonomists to try to track down the plethora of private collections around the world. Work on taxonomy, biodiversity and phytogeography now forms the core research effort with many collaborative studies being undertaken with both national and international colleagues. A project currently undertaken by Perpetua Turner is to curate a collection of a further 5000 specimens from Heard Island.

Over the years, work on Macquarie Island has added close on 50 records of moss and liverwort species, many new lichen records, three new records of flowering plants, and the rediscovery of two other flowering

plants. Each visit has provided some additions to the known flora list. A handbook of the mosses of Macquarie Island will soon be published, written and beautifully illustrated by Prof Rod Seppelt and edited by Dr Dana Bergstrom. This text will include descriptions of the 80 or so mosses known from the island, each with detailed scientific illustrations by the author.

Pep Turner, Australian Antarctic Division, Tasmania.

Bryophyte Records

New and interesting bryophyte records

New to Australia

***Andrewsianthus bidens* (Mitt. ex Steph.) R.M. Schuster**

QLD: Paluma, west of township, in damp grassy woodland, creeping over fine humus on the ground; MELU 3204

Note: This species outwardly resembles some *Cephaloziella* species, especially *C. kiaeri*. It is recognisable by the distantly spaced, succubous to transverse, bilobed leaves, and the short to long cylindrical, almost transparent perianths that are sharply 5 or 6-pleated to the base and gradually contracted to the mouth, which is shortly but distinctly ciliate. *A. bidens* is also known from various localities in South East Asia and from New Guinea.

***Cololejeunea oshimensis* (Horik.) Bened.**

QLD: Mount Lewis, growing over other bryophytes on branch of tree in tropical rainforest; not accessioned (insufficient material).

Note: This distinctive species was determined from a single stem discovered among other bryophytes. *Cololejeunea aoshimensis* (Horik.) Mizutani has been reported from Queensland, but that is a quite different species from Japan and is unlikely to occur in our region.

***Metzgeria hebridensis* Steph.**

QLD: Tully River district, in tropical rainforest, coll. G.A.M. Scott 4 Sept 1985. MUCV 6751.

Note: This specimen is distinguished by the verrucose dorsal surfaces of the cells of the lamina and the constant 2/2 arrangement of cells overlying the midrib. In the specimen cited the cells of the lamina and outer midrib are also slightly mamillate on the dorsal side, and the margins of the lamina are often inrolled.

***Paraschistochila aligera* (Nees & Blume) Schust.**

QLD: Bellenden Ker (MUCV 4683, 6019), Mt Lewis (MELU 242, 272; MUCV 7387, 7393, 7477, 7512), Mt Spec (MELU 1025), Thornton Peak (MELU 474, 486), on the bark of trees and palms, also on rock, coll. G.A.M. Scott, I.G. Stone and P. Phillips, various dates.

Note: Within the Schistochilaceae the genus *Paraschistochila* is characterised by unequally lobed leaves and the absence of underleaves, at least on sterile shoots. In Australia it seems to be confined to the high peaks of the Wet Tropics. The dorsal lobe is remarkably truncate, with the free end toothed and the corner of the lobe often armed with a long, curved tooth. The apex of the ventral lobe is coarsely toothed and often shallowly incised. *P. aligera* is distributed widely in the islands of South East Asia, as well as New Guinea, the Caroline Islands of Micronesia, Vanuatu, Solomon Islands and Samoa.

***Paraschistochila philippinensis* (Mont.) Schust.**

QLD: Mount Hosie, no habitat details; coll. I.G. Stone 1 Aug 1984; MUCV 5887.

Note: This species is seemingly very rare in Australia, known so far from this single collection. A collection from Mt Lewis might also be this species, but insufficient material was available to make a certain determination. The dorsal lobe gradually and smoothly tapers to the junction with the keel, and the apex of

the ventral lobe is very lightly toothed. *P. philippinensis* occurs widely in the islands of South East Asia, New Guinea, the Solomon Islands and New Caledonia.

***Paraschistochila lacerata* (Steph.) Schust.**

QLD: Thornton Peak, on rock; coll. P. Phillips 7 Oct 1986; MELU 454. Josephine Falls National Park, epiphytic in riparian tropical rainforest; coll. G.A.M. Scott 12 Sept 1985; MUCV 7456. Alligators Nest, on rock in perennial creek bed in open forest; MELU 3211.

Note: Previously thought to be endemic to New Guinea, this very distinctive species appears to be not so rare in the Wet Tropics of Queensland. It is superficially like *P. aligera*, but the leaves are almost oblong and bordered in the upper half by long cilia that are commonly bifurcate, and the corner of the free margin of the dorsal lobe bears a long, usually bifurcate cilium. The cilia are fragile and are usually missing from older leaves, leaving behind blunt, angular 'teeth'.

New to Queensland

***Drucella integristipula* (Steph.) E.A. Hodgson**

QLD: Paluma Ranges National Park (Mt Spec area), on rotting log in simple notophyll rainforest; MELU (not yet accessioned)

Note: This species, moderately common in south-eastern Australia, might be more common in the Wet Tropics than this single record suggests, since it resembles other Lepidoziaceae and is easily overlooked.

New to Victoria

***Diplophyllum verrucosum* Schust.**

VIC: Middle Creek, on soil at edge of sphagnum bog in headwaters east of High Plans Road; MELU 7113.

Note: This species also occurs in New Zealand, Tasmania and New South Wales, always in alpine habitats.

***Radula tabularis* Steph.**

VIC: Tarra-Bulga National Park (Tarra Valley section); growing over mosses on fallen branch of *Nothofagus cunninghamii*; MELU 7110.

Note: Previously reported from South Africa, Réunion, New Zealand, New South Wales and Tasmania. The oil bodies (one per cell, filling most of the cell) are irregularly ellipsoid, pale brown and finely granular-papillose, reminiscent of chocolate crackles.

Other interesting records

***Saccogynidium muricellum* (De Not.) Grolle**

QLD: Lumholtz National Park; on bank of creek just above waterline; MELU (not yet accessioned).

Note: This is the second locality reported for this species in Australia, the other being Thornton Peak (also in Queensland) where two specimens have been collected. The Thornton Peak specimens have wider underleaves reminiscent of those of *S. rigidulum* (Nees) Grolle, so that the two species are not as distinct as the literature suggests.

***Pseudocephalozia paludicola* R.M. Schuster**

VIC: Baw Baw Plateau, c. 700 m from village, on soil in an undisturbed grassy soak adjacent to a *Eucalyptus pauciflora* stand; MELU 7112.

Note: This is a rediscovery of the 1975 record of Scott, from 'above Ski Run 5'. The presence of pale stolons makes this species easily recognisable in the field, once the general form of the shoots and orientation of the leaf insertion is recognised. *P. paludicola* is listed as a threatened species under Victorian and Australian legislation. The population at the location cited appears to be healthy and well protected from disturbance.

Possible type localities for *Macromitrium subulatum* Mitt.

In their 1985 revision of the *Macromitrium* complex in Australasia, Dale Vitt and Helen Ramsay noted that *Macromitrium subulatum* Mitt. is known only from the type, for which the collection locality is not known. The species was described by Mitten in 1882 in *Transcripts of the Royal Society of Victoria* **19**: 64, from a specimen annotated merely 'Bass Straits, Milne'.

The collector was undoubtedly William Milne, gardener at the Royal Botanic Gardens in Edinburgh and botanical collector on the hydrographic survey vessel *HMS Herald* from 1852 to 1858 during its remarkable nine-year cruise. Milne's collections were sent to William Hooker at Kew.

The voyage is recounted by Andrew David in *The Voyage of HMS Herald to Australia and the South-west Pacific 1852–1861 under the command of Captain Henry Mangles Denham* (Miegunyah Press 1995). During this voyage the *Herald* spent a short time in Bass Strait, where Milne went ashore on at least two occasions: on Prime Seal Island for a brief visit, and Flinders Island where he made an extensive excursion. He might also have spent a few hours on Three Hummock Island.

It seems likely that one of these three islands is the type locality for *M. subulatum*. Since Flinders Island is by far the largest and no doubt yielded an extensive botanical collection, it seems most likely that it is the type locality. However, two separate bryological trips to the island in recent years have failed to find the species.

It is also possible that Bass Strait was not where the material was collected. Milne was apparently a keener collector than he was presser, labeller and cataloguer of plants during the voyage, a fact that probably contributed to his forced resignation at the instigation of Hooker (David, p. 311). It is therefore plausible that this species, which Vitt and Ramsay pointed out has no close affinities with other species in the geographic area, might have been collected elsewhere, and the location mislabelled by Milne himself.

David Meagher School of Botany, The University of Melbourne

Forthcoming Workshop

20th John Child Bryophyte Workshop

The 20th John Child Workshop is to be held in Golden Bay at the NW corner of the South Island of New Zealand, an area of considerable geological and botanical interest. The venue and dates are yet to be confirmed. It is intended to send the first circular to those who attended either of the last two workshops, those at Wanaka and the Hunua Ranges. Others who wish to be placed on the list to receive the first circular, or who have other enquiries, may contact:

Peter Beveridge, c/o Botany Department, Museum of New Zealand, Te Papa Tongarewa, PO Box 467, Wellington, New Zealand. E-mail, peterb@tepapa.govt.nz

Order of New Publications

To obtain an order form for *Catalogue of Australian Liverworts and Hornworts* or *A Field Guide to the Mosses and Allied Plants of Southern Australia*, please contact:

Dr. P. M. McCarthy
Australian Biological Resources Study
GPO Box 787
Canberra, A.C.T. 2601. Australia. Email: patrick.mccarthy@ea.gov.au